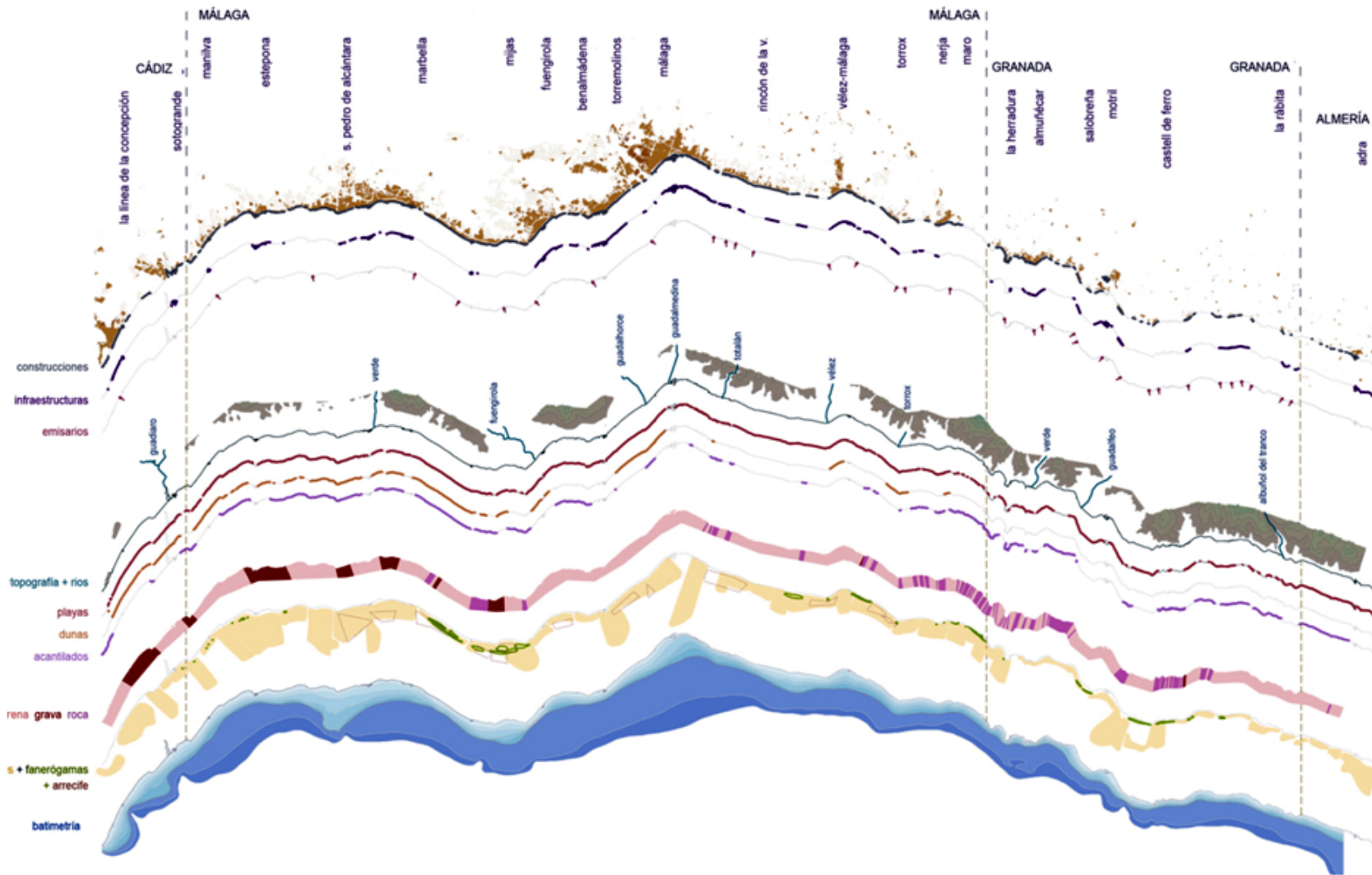


# Environmental alteration process of eastern Costa del Sol. Tourism as an engine of change





# Layers of the territory

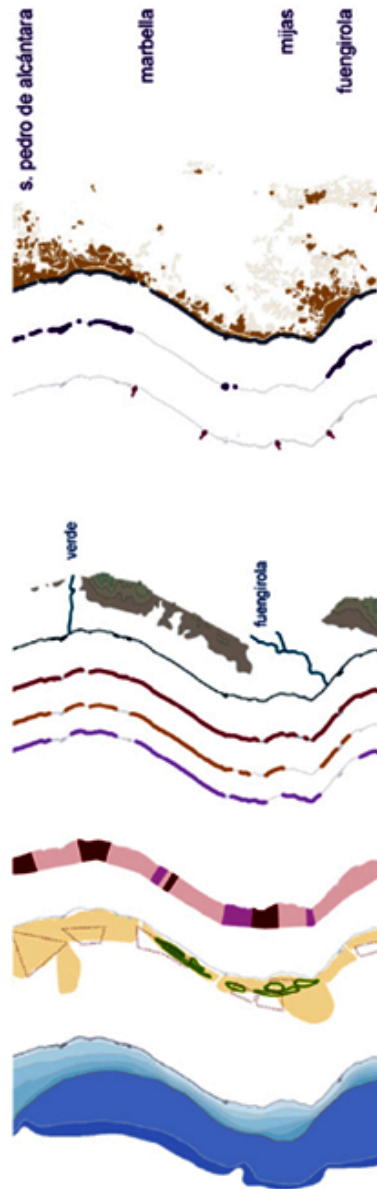


Urban  
sprawl

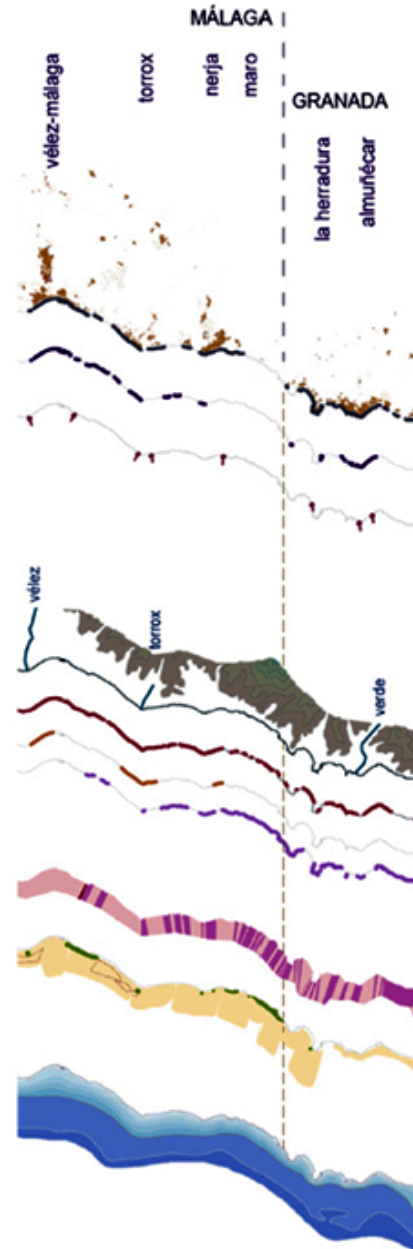
the physical  
environment  
of the Earth

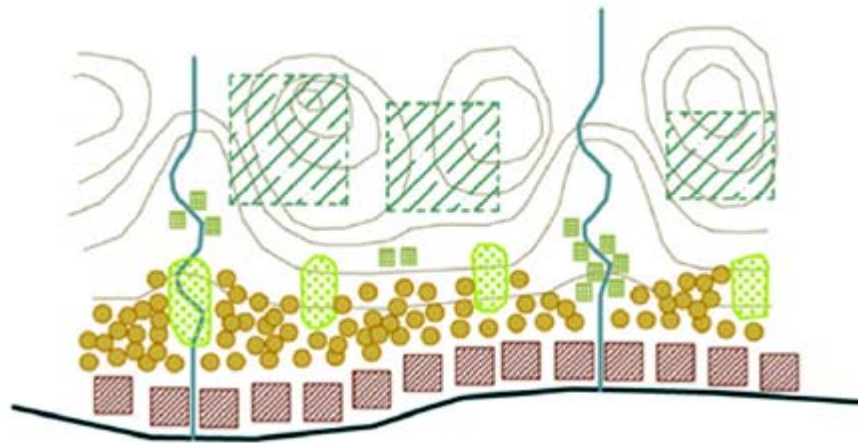
underwater  
environment

## Costa del sol



## Axarquía





- edificación alta densidad High density city
- edificación baja densidad Low density city
- campo golf Golf course
- campo de cultivo Agricultural land
- espacio natural de valor Valuable natural space

**Costa del Sol Model. High Density**

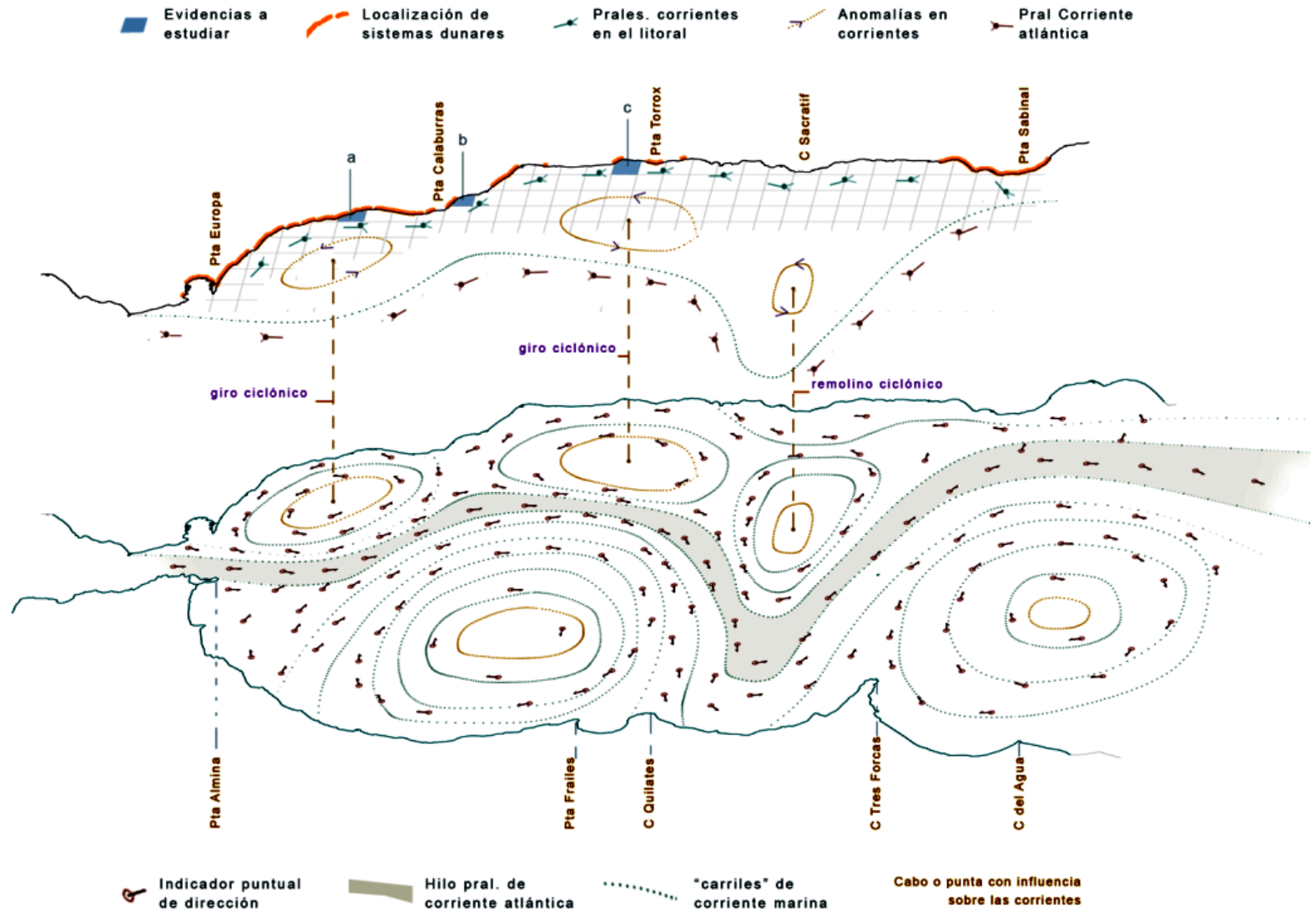
MODELO EXPLOTACIÓN INTENSIVA -COSTA DEL SOL-



**Axarquía Model. Low Density. disseminated**

MODELO COSTERO BAJA DENSIDAD -AXARQUÍA-

## Corrientes marinas y deriva litoral. Influencia en la costa y evidencias que lo muestran

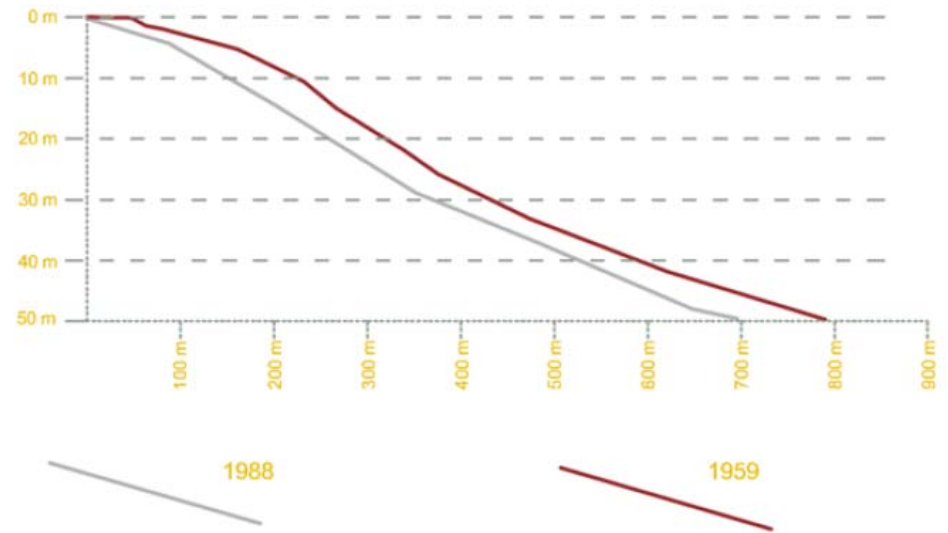








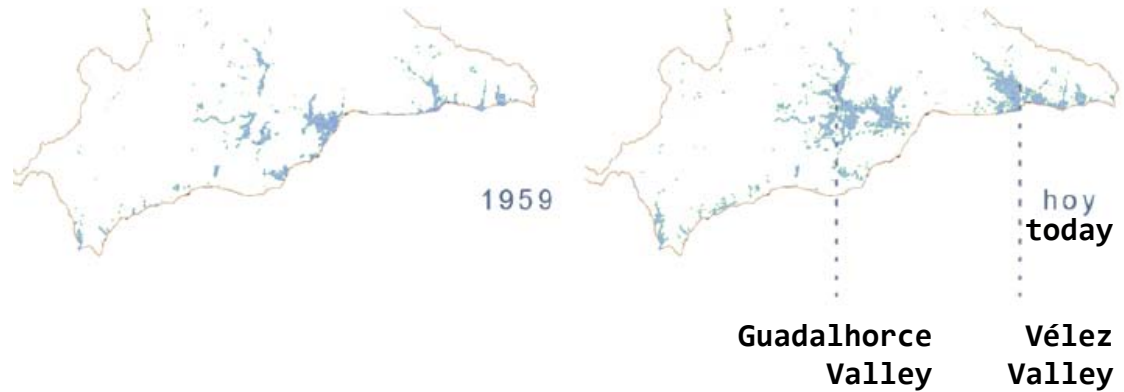
Submarine profile evolution before and after the construction of the basin





## Irrigated area in the Málaga province

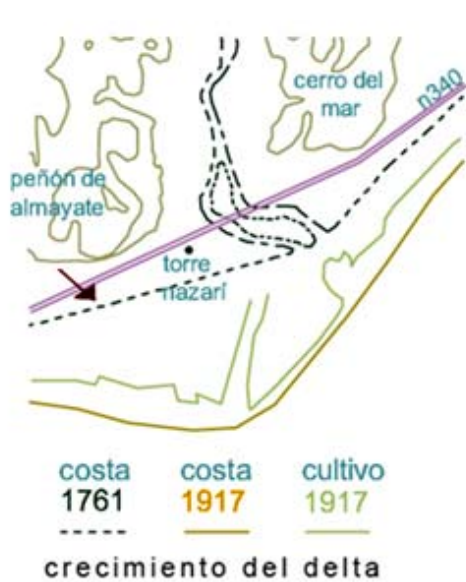
extensión regadíos



## Situation of the aquifer in the basin



Delta growth.  
Natural situation



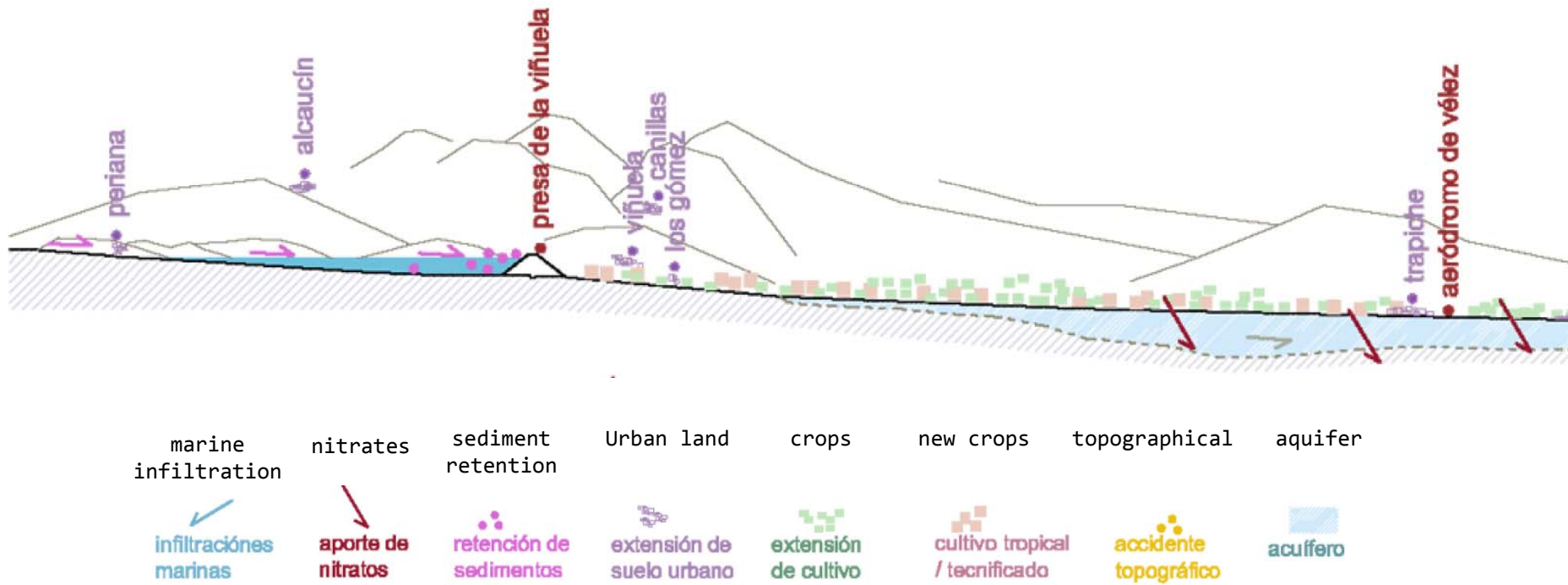
Delta brake growth  
Construction of the dam



invasion of the mouth  
urban pressure



## Section of the channel. River Vélez.





## Kind of system tipo de sistema

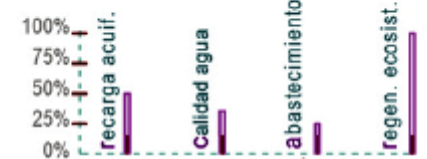
**S**istema tradicional  
hasta 1940  
traditional

## System description descripción del sistema

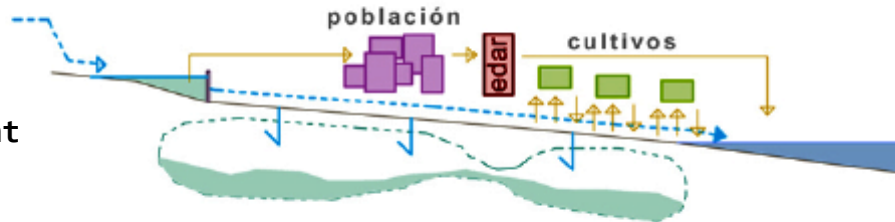


Extracción directa del acuífero y río. Aguas residuales sin tratamiento (río o pozos negros)

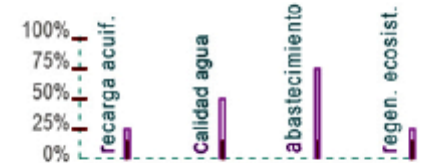
## Evaluation evaluación del sistema



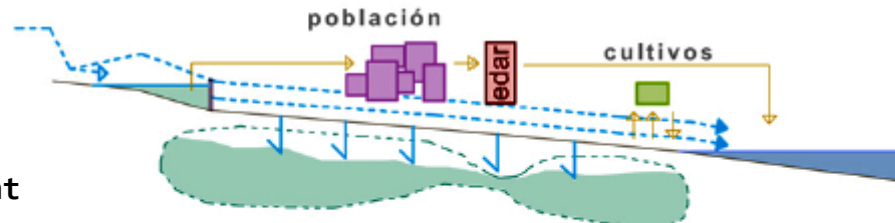
**p**resa + EDAR  
1940 a hoy  
Dam + treatment plant



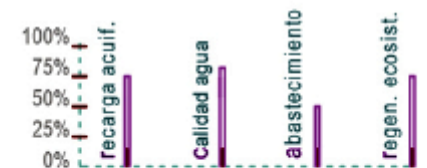
Extracción de agua de la presa. Cauce del río sin agua. aguas residuales tratadas al mar por emisario submarino



**C**audal ecológico  
proposito agenda 21  
Ecological flow +  
Dam + treatment plant



La presa expulsa agua para caudal ecológico. Se extrae agua para consumo de presa.  
Desabastecimiento



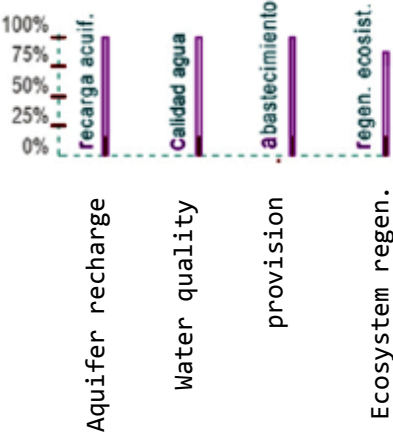
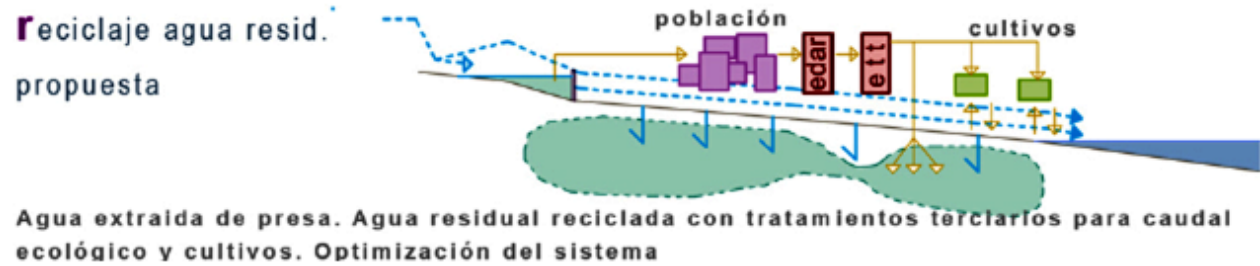
Aquifer recharge  
Water quality  
provision  
Ecosystem regen.

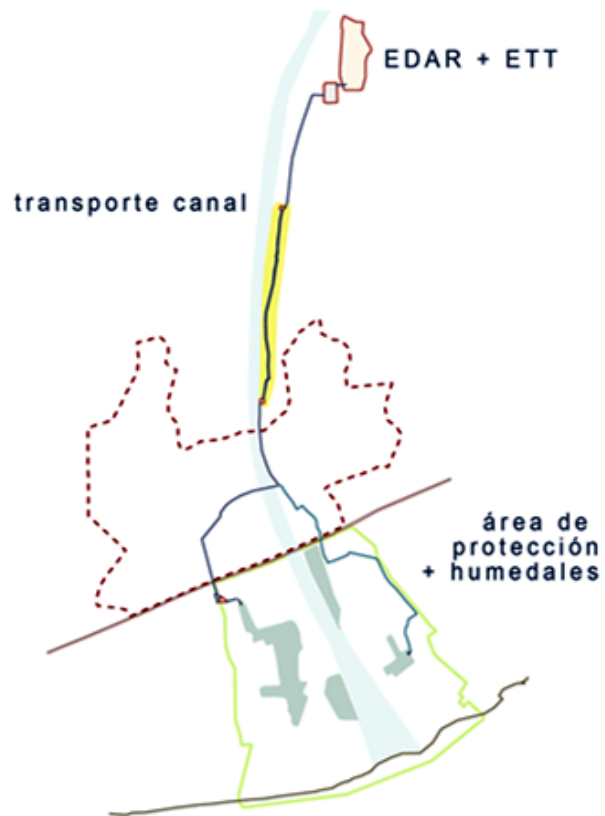
Kind of system

System description

Evaluation

Ecological flow + Dam +  
treatment plant + wastewater  
recycling







planta de definición del área de protección







sección 1 0 10 20 30 40 (m)

